



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D6101-003

Job Sheet 175909



5067887

Part No: D6101-003

Job Qty: 30 ea

Part Name: Saddle Billet, 7075



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 4/12/18

Job Tracking No:

Due Date: 5/8/18

Created By: Chantal Lavoie

Type: Stock

Description:

Note: DWG REV B

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	30 pcs		5/8/18	0.00	0.00	Purchasing		DAS MAY 02 2018
110	Packaging	30 pcs		5/8/18	0.00	0.00	Packaging2		9-MAY 02 2018
120	QC	30 pcs		5/8/18	0.00	0.00	QC6		MAY 02 2018
130	Packaging	30 pcs		5/8/18	0.00	0.00	Packaging3-2		SPC 16/09/03
140	QC21-SA	30 Ea		5/8/18	0.00	0.00	QC21		21 MAY 03 2018

Part Op 100 - Issue P/O: 39599 a) Description: Aluminum billet b) 7.875" x 6.250" x 2.00" thick c) Tolerance on all Descriptions: dimensions are +0.030"/-0.000" d) Grain direction along 7.875" length e) Material: 7075-T7351 (QQ-A-250/12) f) Material certification required

110 - Ensure material certification is attached

120 - Ensure Material certification comply to Dwg D6101

130 - LOCATION: MAT046

DAS
13
9-89

APR 13 2018

x30

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6101-003P	7075-T7351 2X6.25X7.875	30 pcs (1 ea)	100-Purchasing	

Job Allocations

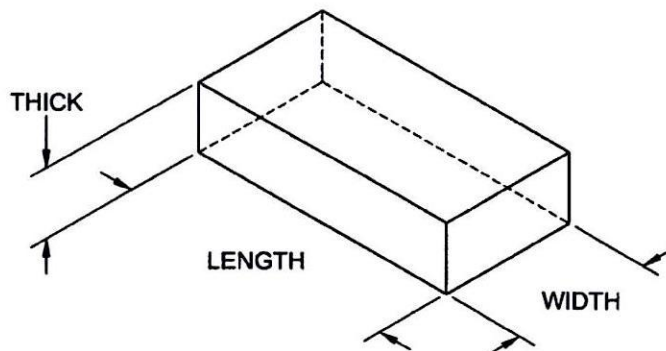
Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	D6101-003P	30	0	0

Part Specifications

Specifications could not be found.

Plex 4/12/18 7:28 AM dart.lavoie.chantal

SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

B ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

RELEASED
09/07/15/WB

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D6101	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE BILLET, 7075	NTS
DATE	09.04.23	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 06101-003
 DATE: MAY 02 2018

PO / BATCH NO: 039599/5067865

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 30 fcs
 QUANTITY INSPECTED: 30 fcs
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.000
 THICKNESS RECEIVED: 2.000
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	☒ N	
CORRECT FINISH	☒ Y	☐ N	
CORROSION	Y	☒ N	
CORRECT GRAIN DIRECTION	☒ Y	☐ N	
CORRECT MATERIAL PER M-DRAWING	☒ Y	☐ N	<u>QQ-A-250/12</u>
CORRECT THICKNESS	☒ Y	☐ N	
PHOTO REQUIRED	Y	☒ N	
CORRECT REF # TO LINK CERT	☒ Y	☐ N	<u>Heat # 9413741</u>
CORRECT MATERIAL IDENTIFICATION	☒ Y	☐ N	
CORRECT M# ON THE MATERIAL	☒ Y	☐ N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u>	SIGNED OFF BY: _____
DATE: <u>9-89 MAY 02 2018</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

INTERORG TRANSFER
PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 2

Shipment No:3576043

Ship From: A. M. CASTLE & CO. 3050 S HYDRAULIC WICHITA, KS 67216 USA		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped	F.O.B.	Freight Terms		Carrier		BOL No	
23-APR-18	ORIGIN	Prepaid		XPO LOGISTICS FREIGHT		3576043-2	

Shipment Details	Final Destination Branch - TOR
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Order No	Line No	Item No	Description				
5108710	2	752237.MO	2.0000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000 CUT 2SIDED TO 6.25 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.875")) X 7.875 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.875")) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12				
Purchase Order No		Part Number	Ordered Qty		Invoice Qty		
39599		YOUR ITEM NUMBER: D6101-003	30.00 PCS		30.00 PCS		
Details		ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS					
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
121773023	CONSTELLUM ROLLED PRODUCTS			30			304.8254

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.

Date Printed: 23-APR-2018 03:01:05 PM

INTERORG TRANSFER
PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 2 of 2

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Aaron R. Hayes 

Date:

Name:



CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

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A M CASTLE CO
3050 SO HYDRAULIC
WICHITA KS
67216
US

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A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110644527		4776		INCLUSION		Serial:20180405-0110644527		Pg 1of5	
CUSTOMER PURCHASE ORDER NO. & ITEM 453764						Constellium ORDER NO. 232841					
ALLOY 7075	CLAD	TEMPER T7351	GAUGE 2.00000 in 50.80 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm	CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Dave Dunbarger - Laboratory Manager					
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4078J											
PART NUMBER 752237		B/L NUMBER 97580		DATE SHIPPED 04/05/2018							
WT. SHIPPED 11460.000 LB		NO. OF PIECES 000008		GOVT. CONTRACT NO.							

ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:

ASTM B594 REV 13 2013 100% SONIC W/ 0.12" DEADZONE Class A
AMS QQ-A-250/12A
AMS-STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE
ASTM B209-14
BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE
CMMP025 REV U
CSTI006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE
DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE
GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE
MMS 159T
PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE

Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001749075	1,435.000	650.905	9413741	01		
1001749075	1,435.000	650.905	9413741	02		
1001749076	1,435.000	650.905	9413741	03		
1001749076	1,435.000	650.905	9413741	04		
1001749190	1,430.000	648.637	9413739	01		
1001749196	1,430.000	648.637	9413742	01		
1001749196	1,430.000	648.637	9413742	02		
1001749197	1,430.000	648.637	9413742	03		

Lot: 9413741 (See test results below)





Constellium



Constellium Rolled Products
Ravenswood, LLC

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Tensile - Room Temperature (US) <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2"></th> <th colspan="2">Ultimate (KSI)</th> <th colspan="2">Yield (KSI)</th> <th colspan="2">Elongation (%)</th> <th>Report</th> </tr> <tr> <th>Direction</th> <th>Tests</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th></th> </tr> </thead> <tbody> <tr> <td>LT</td> <td>02</td> <td>74.8</td> <td>75.2</td> <td>63.9</td> <td>64.4</td> <td>12.5</td> <td>12.5</td> <td></td> </tr> </tbody> </table>														Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report	Direction	Tests	Min	Max	Min	Max	Min	Max		LT	02	74.8	75.2	63.9	64.4	12.5	12.5	
		Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report																														
Direction	Tests	Min	Max	Min	Max	Min	Max																															
LT	02	74.8	75.2	63.9	64.4	12.5	12.5																															
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		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report																														
Direction	Tests	Min	Max	Min	Max	Min	Max																															
LT	02	516	518	441	444	12.5	12.5																															
Conductivity % IACS MIN 39.5 MAX 39.7 % MS/M MIN 22.9 MAX 23.0																																						
Chemistry (Actual) <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>SI</th> <th>FE</th> <th>CU</th> <th>MN</th> <th>MG</th> <th>CR</th> <th>ZN</th> <th>TI</th> <th>ZR</th> </tr> </thead> <tbody> <tr> <td>Core</td> <td>0.05</td> <td>0.11</td> <td>1.41</td> <td>0.05</td> <td>2.57</td> <td>0.20</td> <td>5.55</td> <td>0.04</td> <td>0.00</td> </tr> </tbody> </table>													SI	FE	CU	MN	MG	CR	ZN	TI	ZR	Core	0.05	0.11	1.41	0.05	2.57	0.20	5.55	0.04	0.00							
	SI	FE	CU	MN	MG	CR	ZN	TI	ZR																													
Core	0.05	0.11	1.41	0.05	2.57	0.20	5.55	0.04	0.00																													
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER																																						
All material contained in this lot was cast and manufactured in the USA																																						
Lot: 9413739 (See test results below)																																						
																																						



Constellium Rolled Products
Ravenswood, LLC

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A M CASTLE CO
3050 SO HYDRAULIC
WICHITA KS
67216
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A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110644527		4776		INCLUSION		Serial:20180405-0110644527		Pg 3of5	
CUSTOMER PURCHASE ORDER NO. & ITEM 453764						Constellium ORDER NO. 232841					
ALLOY 7075	CLAD	TEMPER T7351	GUAGE 2.00000 in 50.80 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm		CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Dave Dunbarger - Laboratory Manager				
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4078J											
PART NUMBER 752237			B/L NUMBER 97580		DATE SHIPPED 04/05/2018						
WT. SHIPPED 11460.000 LB		NO. OF PIECES 000008		GOVT. CONTRACT NO.							
Tensile - Room Temperature (US)											
Ultimate (KSI)				Yield (KSI)		Elongation (%)		Report			
Direction	Tests	Min	Max	Min	Max	Min	Max				
LT	02	75.5	75.6	64.4	65.0	12.0	12.5				
Tensile - Room Temperature (SI)											
Ultimate (N/MM2)				Yield (N/MM2)		Elongation (%)		Report			
Direction	Tests	Min	Max	Min	Max	Min	Max				
LT	02	521	521	444	448	12.0	12.5				
Conductivity % IACS MIN 39.2 MAX 39.6 % MS/M MIN 22.7 MAX 23.0											
Chemistry (Actual)											
	SI	FE	CU	MN	MG	CR	ZN	TI	ZR		
Core	0.05	0.12	1.53	0.05	2.54	0.20	5.39	0.03	0.01		
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER											
All material contained in this lot was cast and manufactured in the USA											
Lot: 9413742 (See test results below)											
											
P-860-155D REVISED: 01 2018											



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Ravenswood, LLC

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Tensile - Room Temperature (US)											
		Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report			
Direction	Tests	Min	Max	Min	Max	Min	Max				
LT	02	74.7	75.3	63.8	63.8	12.0	12.5				
Tensile - Room Temperature (SI)											
		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report			
Direction	Tests	Min	Max	Min	Max	Min	Max				
LT	02	515	519	440	440	12.0	12.5				
Conductivity % IACS MIN 39.3 MAX 39.5 % MS/M MIN 22.8 MAX 22.9											
Chemistry (Actual)											
	SI	FE	CU	MN	MG	CR	ZN	TI	ZR		
Core	0.05	0.12	1.53	0.05	2.54	0.20	5.39	0.03	0.01		
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER											
All material contained in this lot was cast and manufactured in the USA											
QUALITY TEXTS: AMC CA-15413A R 8											
											
P-860-155D REVISED: 01 2018											



Constellium

naacap
Materials Testing Laboratory

CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

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A M CASTLE CO
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PART NUMBER 752237			B/L NUMBER 97580		DATE SHIPPED 04/05/2018						
WT. SHIPPED 11460.000 LB		NO. OF PIECES 000008		GOVT. CONTRACT NO.							

THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CHEMISTRY BY OES: ARKSPARK

CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT

WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399

WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557

DUNS Number: 090570149; CAGE Code: 1YWL9

Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product.

"END OF CERTIFICATION"

